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D. Clark Turner

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EXAMINER

KIKNADZE, IRAKLI

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MAIL DATE

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04/16/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/529,805	Applicant(s) TURNER, D. CLARK	
	Examiner IRAKLI KIKNADZE	Art Unit 2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/15/2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In response to the Office action Mailed on November 16, 2007 the Amendment has been received on February 15, 2008.

Claims 1, 2, 5, 9, 10, 13-15, 17, 19, 21, 23 and 24 have been amended.

Claims 1-24 are currently pending in application.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-24 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-33 of U.S. Patent No. 7,224,769

B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because patented claims anticipated the current applications claims.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

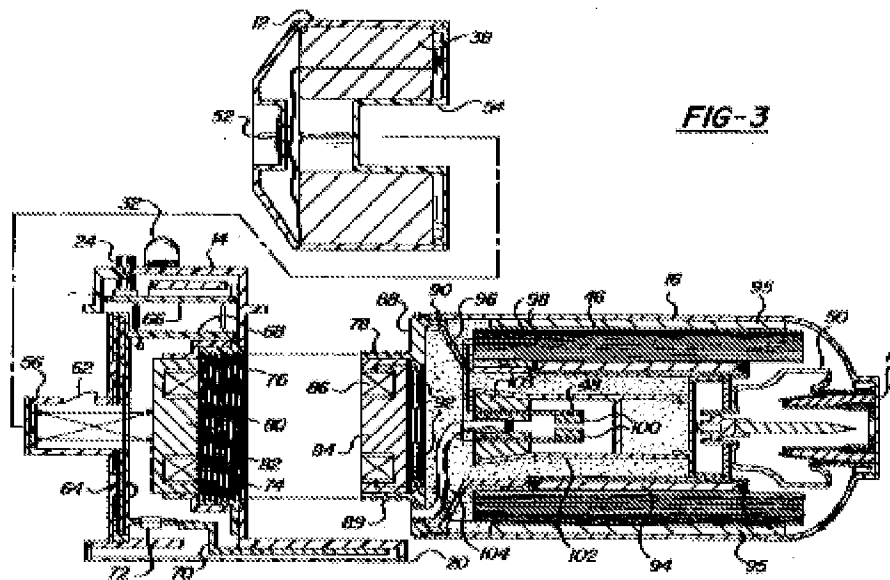
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2, 3, 17 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Golden et al. (US Patent 5,442,677).

With respect to claim 1, Golden teaches a portable x-ray device (see abstract), comprising: a housing with a first portion that contains an x-ray source that is powered by an integrated power system and the housing also contains an internal power source; wherein the x-ray device has a high current load sufficient for radiographic imaging (Figs. 1, 3 and 5; column 4, lines 4-15 and 43-55; see claim 1).

With respect to claim 2, Golden teaches that the device of claim 1, wherein the integrated power system (12) comprises a plurality of low voltage power supplies (column 4, lines 43-55).

With respect to claim 3, Golden teaches a handheld x-ray device, comprising: a housing with a first portion (10) that contains an x-ray source shielded with a low-density insulating material, and that is powered by an integrated power system; and the housing also has a second portion that contains an internal power source (12),



the second portion (12) being removably attached to the first portion so that when the second portion is removed from the first portion, no power is generated for the x-ray source; wherein the x-ray device has a high current load for radiographic imaging (Figs. 1, 3 and 5; column 4, lines 4-15 and 43-55; see claim 1).

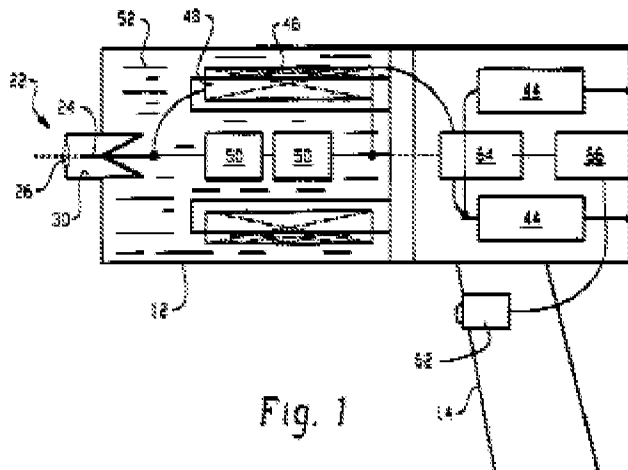
With respect to claim 17, Golden teaches a method for making a portable x-ray device with a high current load, the method comprising: providing an x-ray source in a first portion (10) of a housing; and providing an integrated power system in the first portion of the housing and connecting it to the x-ray source; providing an internal power source in a removable, second portion (12) of the housing; and connecting the second

portion to the first portion (Figs. 1, 3 and 5; column 4, lines 4-15 and 43-55; see claim 1).

With respect to claim 19, Golden teaches a method for analysis, comprising: providing a material to be analyzed; providing a portable x-ray device with a high current load, the device having a housing that contains an x-ray source and that is powered by an integrated power system and the housing also contains an internal power source; and actuating the x-ray source so that an x-ray impinges on the material (Figs. 1, 3 and 5; column 4, lines 4-15 and 43-55; see claim 1).

6. Claims 1, 2, 6, 7 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Kornev (US Patent 6,822,250 B2).

With respect to claim 1, Kornev teaches a portable x-ray device, comprising: a housing with a first portion that contains an x-ray source that is powered by an integrated power system and the housing also contains an internal power source;



wherein the x-ray device has a high current load sufficient for radiographic imaging

(Figs 1 and 2; see abstract; column 4, lines 18-21; column 6, lines 56-68 and column 7, lines 36-50).

With respect to claim 2, Kornev teaches that the integrated power system comprises a plurality of low voltage power supplies (column 7, lines 36-44).

With respect to claims 6 and 7, Kornev teaches that the x-ray source is shielded with a low-density insulating material (column 7, lines 44-50).

With respect to claim 19, Kornev teaches a method for analysis, comprising: providing a material to be analyzed; providing a portable x-ray device with a high current load, the device having a housing that contains an x-ray source and that is powered by an integrated power system and the housing also contains an internal power source; and actuating the x-ray source so that an x-ray impinges on the material

7. Claims 1, 2 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Grodzins (US 6,282,260 B1).

With respect to claim 1, Grodzins teaches a portable x-ray device (see abstract), comprising: a housing with a first portion that contains an x-ray source;--and--that is powered by an integrated power system and the housing also contains an internal power source; wherein the x-ray device has a high current load sufficient for radiographic imaging (Fig. 1; column 2, lines 26-34 and 52-67).

With respect to claim 2, Grodzins teaches that the integrated power system comprises a plurality of low voltage power supplies (column 2, lines 53-55).

With respect to claim 19, Kornev teaches a method for analysis, comprising:
providing a material to be analyzed; providing a portable x-ray device with a high current load, the device having a housing that contains an x-ray source and that is powered by

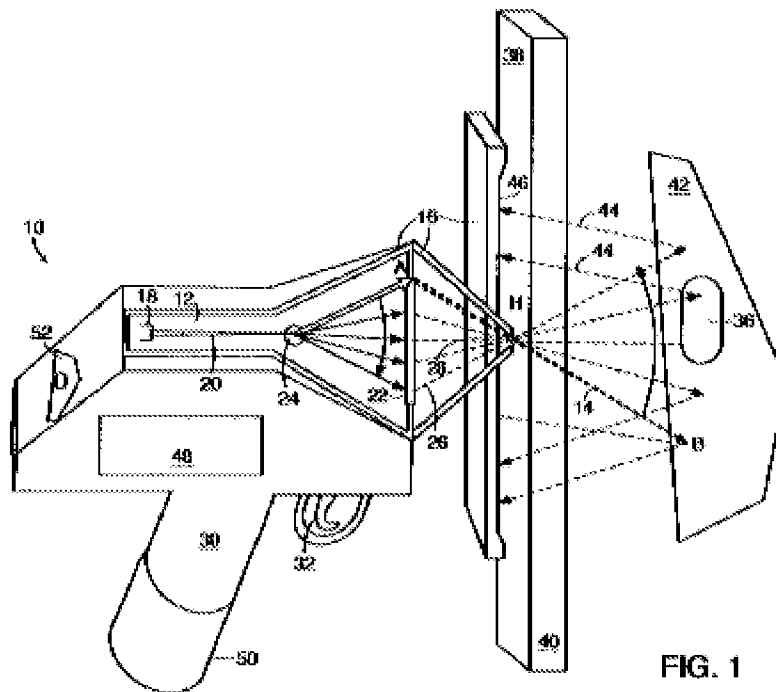


FIG. 1

an integrated
power system and the housing also contains an internal power source (50); and
actuating the x-ray source so that an x-ray impinges on the material (column 2, lines 26-
33 and 52-67).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-4 and 6-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miles (US Patent 6,038,287) in view of Golden et al. (US Patent 5,442,677).

With respect to claims 1, 6-8, 10, 12, 14, 16, 17, 19, 21 and 23, Miles teaches a portable and preferably hand-held X-ray dental imaging device and method (see abstract), comprising: an x-ray source shielded with a low-density insulated material (Fig. 1; column 4, lines 21-38; column 6, lines 10-19). Miles fails to teach housing with a first portion that contains an x-ray source that is powered by an integrated power system and the housing also contains an internal power source; the internal power source is removable attached from the housing, wherein the x-ray device has a high current load sufficient for radiographic imaging. Golden teaches a portable x-ray device (see abstract), comprising: a housing with a first portion that contains an x-ray source that is powered by an integrated power system and the housing also contains an internal power source; wherein the x-ray device has a high current load sufficient for radiographic imaging (Figs. 1, 3 and 5; column 1, lines 6-11; column 4, lines 4-15 and 43-55; see claim 1). This arrangement provides user with a "battery powered portable x-ray emitter that is significantly improved through the arrangement and location of principal components into structural modules, one of which contains as an integrated unit all of the high voltage components including the x-ray tube, charge generator, rectifier and the high voltage side of the step-up transformer... the high voltage and low

voltage modules are mechanically coupled to one another in such a way that the high voltage module may be decoupled or disconnected mechanically from the low voltage components without tools and replaced in the field in the event service is necessary without first going through a careful and/or hazardous discharge procedure and with no risk of shock or injury to the user. Additional high voltage modules may be carried as spares and interchanged with a non-functional module as easily as changing a light bulb” (see column 2, lines 8-29).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the integrated power system with the removably attached internal power source as suggested by Golden in the method and apparatus of Miles, since such a modification would provide user with the battery powered portable X-ray source that is capable of producing high intensity x-ray pulses having the penetrating power normally associated with only with larger and higher power consumption sources.

With respect to claims 2, 3, 11, 15, 17, 18, 20, 22 and 24, Miles teaches a low voltage power supplies, wherein each power supply provides a power ranging from about 20 to about 50 kV (column 6, lines 10-19).

With respect to claim 4, Miles teaches that the power system provides a continuous high voltage DC power (column 6, lines 20-36).

With respect to claims 5, Miles teaches an integrated display means (column 4, lines 37-42).

With respect to claims 9 and 13, Miles teaches the shielding further comprises a high-Z substance, preferably (column 4, lines 26-28).

Response to Arguments

10. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2882

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irakli Kiknadze whose telephone number is 571-272-2493. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on 571-272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Irakli Kiknadze/
Irakli Kiknadze
Examiner
Art Unit 2882

/I. K./
April 10, 2008

